

## CLAIMS

What is claimed as new and desired to be protected by Letters Patent of the United States is:

1. An implantable access port comprising:  
a housing comprising a fluid chamber and an access aperture in fluid communication with said fluid chamber, wherein said access aperture is covered by a septum;  
a port stem extending from said housing, wherein said port stem has an inner lumen forming a channel in fluid communication with said fluid chamber; and  
a marking for providing guidance to a user for placement of a catheter over said port stem, wherein said marking is located on said port stem between a distal end of said port stem and a proximal end of said port stem.
2. The access port according to claim 1, wherein said marking comprises a contrast agent.
3. The access port according to claim 2, wherein said contrast agent comprises an ink.
4. The access port according to claim 1, wherein said marking comprises a contrast material.
5. The access port according to claim 4, wherein said contrast material comprises a ribbon.
6. The access port according to claim 5, wherein said ribbon comprises a metallic material.

7. The access port according to claim 5, wherein said contrast material comprises a shrink-wrap plastic.

8. The access port according to claim 1, wherein said marking is positioned on said port stem such that when the catheter aligned with said marking is compressed by a locking sleeve, a proximal end of said catheter does not abut said housing.

9. The access port according to claim 1, wherein said marking comprises an indentation on an outer surface of said port stem.

10. The access port of claim 1, wherein said marking comprises a raised profile on an outer surface of said port stem.

11. The access port of claim 1, wherein said marking comprises at least two features aligned along the length of said port stem.

12. The access port of claim 11, wherein said features are configured such that said features direct the user to place a proximal end of said catheter between said two features.

13. An implantable access port capable of being implanted beneath the skin of a patient, the access port enabling repeated, non-destructive fluid communication between the tip of a hypodermic needle piercing the skin of the patient and the proximal end of a lumen within a catheter implanted in the body of the patient coupled to the access port, said access port comprising:

an outlet stem extending from a housing of said access port, configured at a distal end thereof to receive the proximal end of said catheter, said stem enclosing a stem channel extending between a proximal end thereof and said distal end, wherein said stem channel is in fluid communication with a cavity in said housing; and

a marking positioned on an outer surface of said outlet stem, wherein said marking is located between said proximal end and said distal end of said outlet stem, and wherein said marking is configured to provide a visual reference for the placement of said catheter.

14. The access port according to claim 13, wherein said marking comprises a raised profile on the outer surface of said outlet stem.

15. The access port according to claim 14, wherein said marking comprises an indentation on the outer surface of said outlet stem.

16. A method of making an access port having a port stem marking comprising:

fabricating an implantable access port capable of being implanted beneath the skin of a patient, said access port comprising an outlet stem extending from a housing of said access port, configured at a distal end thereof to receive the proximal end of said catheter, said stem enclosing a stem channel extending between a proximal end thereof and said distal end, wherein said stem channel is in fluid communication with a cavity in said housing; and

providing a marking on said outlet stem for guiding a user on placement of a catheter over said stem, wherein said marking is located between said proximal end and said distal end of said outlet stem.

17. The method according to claim 16, wherein the act of providing a marking comprises forming an indentation on the surface of said stem.

18. The method according to claim 16, wherein the act of providing a marking comprises forming a protruding structure on the surface of said stem.

19. The method according to claim 16, wherein the act of providing a marking comprises placing said marking at a location on the stem while taking into account the amounts of sliding of the catheter when a locking sleeve is placed over the catheter.

20. The method according to claim 16, wherein the act of providing a marking comprises positioning said marking on the stem such that when the catheter aligned with said marking is compressed by a locking sleeve, a proximal end of said catheter does not abut said housing.

21. A method of connecting a catheter to an access port during implantation of said access port beneath the skin of a patient, the access port enabling repeated, non-destructive fluid communication between the tip of a hypodermic needle piercing the skin of the patient and the proximal end a lumen within a catheter implanted in the body of the patient coupled to the access port to thereby inject a fluid from the needle into the body of the patient by producing a flow of the fluid from the tip of the needle, through the access port, and along said lumen to the distal end of the catheter, comprising:

inserting a port stem of said access port into the proximal end of the catheter; and

adjusting the position of said catheter on said port stem such that the proximal end of said catheter is aligned with a marking on the port stem, wherein said marking is positioned on the port stem as a visual reference for a securing connection between the catheter and the access port.

22. The method according to claim 21, further comprising the act of placing a locking sleeve over the port stem and the proximal section of said catheter to secure said catheter on said port stem.

23. The method according to claim 22, wherein the location of said marking takes into account the amounts of sliding of the catheter when the locking sleeve is placed over the catheter.

24. The method according to claim 22, wherein said marking is positioned on said port stem such that when the catheter aligned with said marking is compressed by the locking sleeve, the proximal end of said catheter does not abut a housing of said access port.